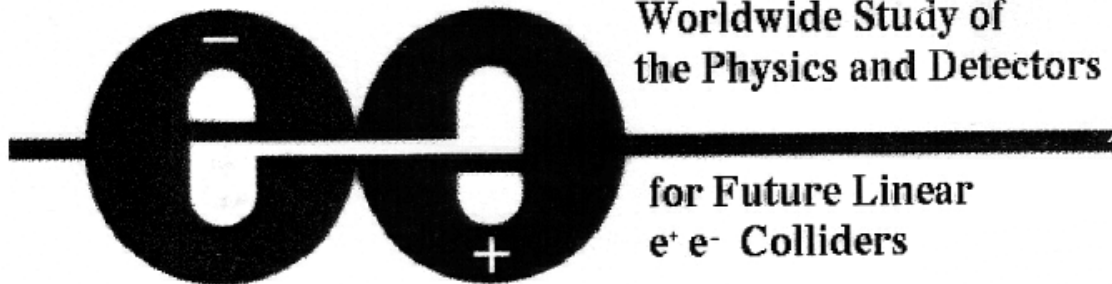
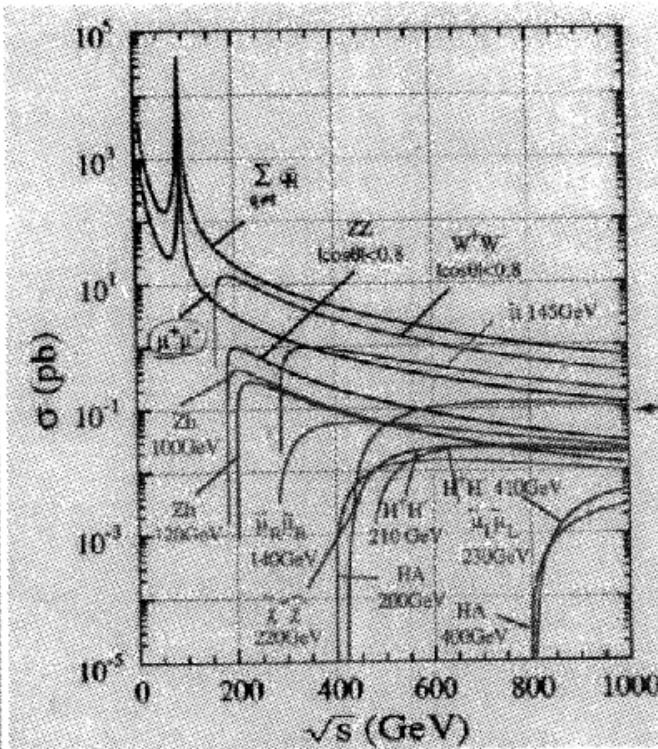


C. BALTAY
Feb 15 ICF A Meeting



A worldwide study of the Physics and Detectors for Future Linear e+e- Colliders is now underway. It has been initiated by an International Organizing Committee at their first meeting in Vancouver, Canada on July 29, 1998. This committee has agreed to meet annually for the next few years as an International Steering Committee to guide and monitor the progress of the study.



- International Organizing Committee
- Working Groups
- Working Group Contact Persons
- Inter-Regional Meetings
- European Activities
- Asian Activities
- American Activities
- Reference Reactions for Detector Simulation Studies

For comments on this web site, please contact the [LC Webmaster](mailto:LCWebmaster@physics.yale.edu) at Yale University Physics Department.

<http://lcwww.physics.yale.edu/lc>

Physics

- A** Higgs and Electroweak Symmetry Breaking including SUSY-Higgs, Strong E-W, h-t Yukawa
(Conveners : E. Gross, R.V. Kooten, M. Carena, S. Jin)
- B** Supersymmetric Particles
(Conveners : T. Kamon, M. Nojiri, H.-U. Martyn)
- C** Precision Electroweak; including VVV, WW, Giga-Z, Extra Dimensions, Other New Ideas
(Conveners : T. Ohl, S. Tkaczyk, C. S. Kim, K. Hagiwara)
- D** QCD, including Top-QCD
(Conveners : M. Martinez, B. Schumm, Y. Sumino)
- E** Gamma-Gamma and Electron-Gamma Physics
(Conveners : M. Krawczyk, J. B. Gronberg, T. Takahashi)
- F** LoopVerein (precision EW and SUSY calculations)
(Conveners : D. Wackerroth, Y. Kurihara,)

Detector R & D

- G** Vertexing and Tracking
(Conveners : M. Winter, H. Park, D. Karlen)
- H** Calorimetry, Muon and Other Detectors
(Conveners : R. Frey, Y. Fujii, M. Piccolo, P. Dauncey)

Strategies, Tools and Machine/Detectors

- I** Program Options (gamma-gamma, e-gamma, e-e-, intersection regions, e+ polarisation etc.)
(Conveners : K. Moenig, J. Jaros, T. Matsui, R. Settles)
- J** Simulation; Generators, Detector Dimulation, Software Tools
(Conveners : N. Graf, K. Fujii,)
- K** Machine-Detector Interface
(Conveners : D. Cinabro, ,)

Workshop Presentation

Participants who wish to make a presentation at LCWS2002 may submit relevant information by clicking [here](#) (under construction). It will then be forwarded to the conveners of the specified session.

Presentation method

Overhead projectors for transparencies and LCD projectors for laptop presentation will be available both for plenary and parallel sessions.

Network availability

Internet connection will be provided with PC terminals. Ethernet ports will also be available for notebook users.

LCWS2002 Programs (Tentative)

Program Overview

	Mon (Aug 26)	Tue (Aug 27)	Wed (Aug 28)	Thu (Aug 29)	Fri (Aug 30)
Morning	Plenary	Parallel Session A. Higgs/EWSB C. Precision EW D. QCD/top G. Tracking	Parallel Session A. Higgs/EWSB B. SUSY D. QCD G. Vertexing/Tracking	Parallel Session A+B. Higgs + SUSY C. Precision EW H. Calorimeter etc I. Experimental Programs	Plenary
Lunch					
Afternoon	Plenary	Parallel Session B. SUSY E. Gam-gam, e-gam F. LoopVerein H. Calorimeter/Muons I. Physics Programs J. Simulations Plenary	Parallel Session A. Higgs and EWSB B. SUSY H. Calorimeter etc. K. MDI Plenary	Plenary	Plenary
Dinner					
Evening	Lab Director's Forum(?)	Parallel Session	Parallel Session	Banquet	

2002

International Workshop on Linear Colliders

Workshop on Physics and Experiments
with Future Electron-Positron Linear Colliders

August 26 ~ 30, 2002 Jeju Island, Korea

The Workshop on Physics and Experiments with Future Electron-Positron Linear Colliders (LCWS 2002) will be held in Jeju Island (formerly spelled as Cheju Island), Korea, during August 26 - 30, 2002. This workshop will be the sixth in a series of International Workshops devoted to the physics and detectors related to the next generation large scale electron-positron linear colliders. Previous workshops took place in Finland, Hawaii, Japan, Spain, and U.S.A.



Local Organizing Committee

J.B.Choi, S.Y.Choi (Chonbuk Univ), I.Park (Ewha Univ), E. Won, J.S.Kang (Korea Univ, Chair), S.K.Oh (Konkuk Univ), H.Park, D.Son (Kyungpook Univ), S.K.Kim, B.G.Cheon, I.T.Yu (Sungkyunkwan Univ), C.S.Kim, H.J.Kim, Y.J.Kwon (Yonsei Univ), P.W.Ko (KAIST)

Please refer to secretariat@lcws2002.korea.ac.kr on physics programs, webmaster@lcws2002.korea.ac.kr on webpage comments.

2. International Physics/Detector Book

May be in two Volumes:

- Physics case for the Linear Collider with international authorship (sometime in 2003?)
- Detailed Book on Physics and Detector Issues (sometime in 2004)

3. International Linear Collider Meetings

Barcelona 1999

Fermilab 2000

Korea 2002

Somewhere in Europe 2003 or early 2004

Linear Collider Detector R&D

DRAFT 8....May 30, 2002

This is the initial public draft.

Please send comments and omissions to the committee by June 15.

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1 Introduction

There is now global consensus that the next accelerator project in particle physics needs to be an electron-positron linear collider (LC) with an energy range between $\sqrt{s} = M_Z$ and about 1 TeV. The physics goals of the linear collider require advances now in the detector technology to optimize the outcome of the experiments which will be characterized by small cross sections.

Several requirements exceed the current state of the art in detectors (see below). Physics and detector studies are ongoing in Asia [1, 2], Europe [3, 4, 5] and North America [6, 7], and are co-operating within a World-Wide Study [8]. The co-chairs of the world-wide study [9] have suggested the compilation of this note to describe the detector R&D required for the timely construction of a detector with the required performance, to list the R&D efforts presently pursued and to point out the areas where efforts are missing or inadequately covered.

The purpose of this compilation is to help organise the R&D efforts more globally and to facilitate and foster interregional collaborations. This note is not meant to be prescriptive or exhaustive. There might well be areas of R&D which are useful to be exploited but which are not mentioned here. We also expect and encourage ideas on novel detector techniques. Explicitly included in considerations here are software developments in the context of the specific R&D efforts. We do not consider, however, generic software R&D which is mandatory but beyond the scope of this document.

In the past, much effort has been devoted to detector R&D for LHC experiments[10]. The principal challenges at the LHC are related to the high event rate and the high radiation levels associated with the luminosities and energies required to do physics. Both of these problems are dramatically reduced at the LC due to the lower beam energies and the falling e^+e^- point-like total cross section, in contrast to the higher beam energy and approximately energy-independent total cross section in pp collisions. The

Current Activities of the Worldwide Study

1. Commissioned a committee to study Linear Collider Detector R&D and write an international R&D Report

Rolf Heuer
Chris Damerell
Ron Settles

Jim Brau
Gene Fisk
Keith Riles

Yoshiaki Fujii
Hwanbae Park
Hitoshi Yamamoto

- Assess what Linear Collider R&D is going on in the three regions at the present
- What else needs to be done

International Organizing Committee of the Worldwide Study of Physics and Detectors for Future Linear e^+e^- Colliders

Co-chairs

Charles Baltay, Yale University
Sachio Komamiya, University of Tokyo
David Miller, U. C. London

North American Committee Members

Jim Brau, University of Oregon (USA)
Robert Carnegie, (Canada)
Paul Grannis, SUNY, Stony Brook (USA)
Mark Oreglia, University of Chicago (USA)
Charles Prescott, SLAC (USA)

Asian Committee Members

Shinhong Kim, Tsukuba University (Japan)
Joo Sang Kang, Korea University Seoul (Korea)
Takayuki Matsui, KEK (Japan)
G. P. Yeh, Taiwan
Tao Huang, University of Beijing (China)

European Committee Members

Michael Danilov, ITEP (Russia)
Rolf Heuer, CERN/DESY (Germany)
Marcello Piccolo, Frascati (Italy)
Francois Richard, Orsay (France)
Ron Settles, Munich (Germany)